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ABSTRACT

An academic review of research on the education of women in New Zealand is presented. Available sources of information on this topic are described, focusing solely on published materials. In a discussion of influences on research on women's education, it is pointed out that the major stimulus for this research comes not from the academic world but rather from women active in the feminist movement. Women's associations and conventions have generated a large portion of the published research reports. A brief analysis is presented on the effects of sex stereotyping in children's books and the media. It is suggested that social bias as reflected in these sources influences female choices of school subjects and careers. The role and status of women in the educational work force is explored. A bibliography of references on this topic is included. (JD)

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Far from the Ivory Tower: A Review of Research on Women and Education in New Zealand

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Men are people, women are women. This view can certainly be inferred by looking at research on women and girls and education in New Zealand. For instance, in a bibliography, an article entitled *Education and vocational aspirations of New Zealand adolescent girls...* was followed by another entitled *Self evaluation and realism of vocational aspirations.* The latter was a study on fifth form boys.

If it is true that women in education in New Zealand are often accorded minority group status within an education system in which males occupy the vast majority of high status positions, it is hardly surprising that research on women and education tends to be done mainly by women themselves, and in particular, by women committed to change. In this review it will be suggested that research on women and education in New Zealand is not the preserve of detached, neuter, ivory tower academics, remote from the real world, and interested in knowledge for its own sake. Rather, research has been stimulated and undertaken away from the laboratory by women with convictions who are frequently striving to prove a point and to work for change. For instance, Bunkle, Levine and Wainwright (1976) introduce a collection of essays and research studies on women with the following comment:

A paper presented at *Research in Education in New Zealand: A Balance Sheet*, First National Conference of the New Zealand Association for Research in Education (NZARE), Victoria University of Wellington, 7-10 December, 1979.

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> Most of us do not believe in 'knowledge for its own sake'. By publishing these essays we seek to use our understanding for a social purpose, to add our voices to the feminist movement... These essays are not neutral. A conscious effort has been made to describe sexism 'the way I see it', not according to an abstract academic formula which takes the guts out of the experience.

Some would even go so far as to reject the traditional models of research as 'internalising a male academic perspective' (Levine, 1974, p. 81).

Thus, research tends to be intertwined with ideology, commitment and action. Material on women in New Zealand is often hard to locate (Bunkle, 1976, and Dell, 1978). Findings are frequently handed round in unpublished papers or reported at various gatherings, rather than published in academic journals or reported to academic conferences. Material is gathered to substantiate submissions, rather than to test a theory, and much of the research is small-scale, and local, rather than national or definitive. All of these factors make an academic-type review of the research a difficult proposition. However an attempt will be made, first by describing available sources and looking at the quantity of research done, then by briefly looking at influences on research on women and education, and finally by reviewing some of the research results and indicating some gaps in the research thus far.

Sources of Research Surveyed

In carrying out this survey, education was defined very broadly to include both formal and informal education and socialization. However, the review was limited to studies directly focused on education and thus omitted such topics as child care, politics, employment, and the status and role of women, although all of these do of course have implications for the education of women and girls.

It was also decided to focus on published material. This unfortunately rules out a considerable amount of research, but it is possibly a more realistic indication of the material readily available at the moment.

No bibliographies specifically related to women and education in New Zealand were available in Dunedin although others have found bibliographies such as those prepared by students of the New Zealand Library School and the New Zealand Council for Educational Research helpful.

Fortunately, thesis studies relevant to women and education are covered in various publications. Roth's *Bibliography of New Zealand Education* (1964) covers the period up to 1961, while Pickens (1975, 1976 and 1979) lists more recent studies. An analysis of thesis titles shows a marked increase in research on women and education since the mid sixties (see Table 1). Indeed, only two theses on women or girls were found in Roth's index under *Women* or *Girls* and no separate section on women was included in the text. A further search of the entire list revealed several further theses possibly relevant to the topic which are included in the table. But overall very few theses were undertaken on women and education in the first 50 years of this century.

Table 1: Theses on Education and Women or Girls in New Zealand 1930 - 1970s

1930 - 1934	1	1955 - 1959	4
1935 - 1939	-	1960 - 1964	5
1940 - 1944	-	1965 - 1969	11
1945 - 1949	2	1970 - 1974	16
1950 - 1954	-	1975 +	13

While the lists may not be complete and the classification subjective, the trend is clear.

It is difficult to carry out a similar analysis of published research since a considerable proportion of published material is comment and opinion rather than research, and titles do not necessarily indicate whether or not an article is describing research activity. However, the same pattern is evident with a big increase in published material since the late sixties.

The two major bibliographic sources used to locate material published since 1961 give a very different impression of the amount of research undertaken. The *Index to New Zealand Periodicals* has a heading for *Women and Education* only for the years 1968 and 1976, and although references are included under other headings, the overall number is relatively small. Similarly, an analysis of the contents of the *New Zealand Journal of Educational Studies* since its beginning in 1966 reveals only seven articles focused on women or girls, and two of these are only indirectly relevant to education. In contrast,

Seymour's bibliographies on Women's Studies in New Zealand (1978 and 1979) covering the period since 1974 have a large number of entries. For instance, 21 entries are listed under Education in 1978, although this number is much smaller than the number for some other topic such as abortion on which there were 35 entries in 1978. Seymour's bibliographies include student papers and other unpublished material, as well as a wide variety of material published outside the usual academic channels. Furthermore, much of the material is comment rather than research reporting, so it is not surprising that different impressions are gained from the two bibliographic sources.

It appears that much of the research undertaken on women and education is not published in academic journals. Possibly, this reflects a desire to reach a wider audience in an endeavour to influence public opinion and practice. However, one consequence is that interesting research results are sometimes published without a full presentation of the data and design details necessary for informed evaluation.

Similarly there seems to be a desire to make the proceedings of conferences widely available. For instance, the report on the important conference on *Education and the Equality of the Sexes* has been widely distributed. Unfortunately the report is in summary form and does not include actual papers presented at the conference, many of which were valuable contributions, frequently referred to in the literature. It is pleasing to note that papers from the Womens' Studies Association Conference in Hamilton last year have been published in full.

Possibly there is a trend towards more publication of research on women and education. If so, this should greatly help researchers in the area. Certainly there is an increasing trend towards the publication of non-thesis student studies through such outlets as *Delta* and the *Psychological Research Series* from Waikato University. While uneven in quality and often necessarily restricted in scope, sampling and control procedures, these studies are adding to the fund of research findings, suggesting new avenues for research, and demonstrating considerable research interest in women and education.

It is difficult to document, but it appears that most of the research on this topic is being done by women. Where authors' Christian names are given (as in Seymour's bibliographies), these seem to be predominantly female. Several of the articles in the *New Zealand Journal of Educational Studies* have been contributed by males, but the total number of articles in the journal is so small that it would be unwise to generalise from this. In addition, there are far more male than female lecturers in university Departments of Education from which many articles for this journal are obtained. (Only about 10 percent of the permanent staff of Education Departments in 1979 were female.)

Overall, a review of research on women and education in New Zealand suggests that since the mid sixties there has been an increasing research interest shown in this topic, especially among women, and that reports of some of the research are available. Forms of publication are diverse and often intended for the general public rather than an academic audience, but there is a fairly rapidly increasing body of previous research available to those interested in the topic.

Influences on Research

In most areas of research, it would be appropriate to examine major landmark studies and theoretical developments which have provided the stimulus for research. But in research on women and education in New Zealand, it seems to me that the stimulus has often come from outside academia, and indeed from outside the Education establishment - from the women's movement, from conferences, from International Women's Year, from the rapidly multiplying women's studies courses, and from the Society for Research on Women in New Zealand.

The Women's Movement

It is surely not coincidental that the rise of the women's movement in New Zealand has coincided with the increase in research on women and education, and that some of the same people are involved in both. Certainly the United Women's Conventions have provided a great personal stimulus to a large number of women in this country. (For a report of

one such recent convention, see *Changes, Chances, Choices,* Brown *et al.* 1977.) In addition, the movement has been dubbed 'the university without walls' which is, however, 'not initiated by or confined to academic ordering or academic values' (Seymour, 1978, p. xxii). According to Tough (1974), the movement has reached more people and achieved more changes in both men and women than any other educative organization in the last ten years. A careful analysis of the influences of the Women's Movement in New Zealand on both research and education, could well prove very worthwhile.

International Women's Year

Although widely criticised by radical feminists and others (see Ray, 1975), IWY did have the effect in New Zealand of stirring officialdom to some modest courses of action, including the convening of the conference on *Education and the Equality of the Sexes.* In preparation for this conference, 26 projects were undertaken, some details of which are available in the report (Department of Education, 1976). Although the studies were mainly limited in scope, they provided clear evidence on issues such as sex-role stereotyping in curriculum materials and educational environments, and the absence of women from higher levels of the educational establishment in New Zealand. Unfortunately, as has been noted, the report of the conference does not include the actual papers presented, most of which were highly relevant to the topic of this review. However, the format of the conference was designed to achieve more than just talk, and through the studies beforehand, the stimulus to the 100 invited participants and the report prepared in a format suitable for widespread distribution, this conference seemed to me a landmark in the development of research on women and girls in education in New Zealand. It no doubt also served as a consciousness-raising exercise for those in the education system who had assumed that we already enjoyed complete equality between the sexes in education in New Zealand, and thus that research on this topic was unnecessary or even discriminatory.

IWY also resulted in a great deal of writing about women, and both the journal *Education* (No. 9, 1975) and the *New Zealand Post Primary Teachers' Association Journal* (April and May, 1975) devoted considerable

attention to the topic of women and education, particularly to the place of women in the teaching profession.

It has been suggested that 'IWY was yet another plot engineered by men to make us all so heartily sick of the subject that come December 31 we'd be clamouring for the word *woman* to be erased from the English language forever' (Wright, 1975, p.2). However, both in the volume of research generated and a raising of the level of awareness about problems of women and education, it seems that IWY made a positive contribution to research on women and education in New Zealand.

Society for Research on Women in New Zealand (SROW)

This unique organization was formed in May, 1966, at which time it was claimed that 'little other than the most basic facts of births, marriages, deaths, medical and unemployment statistics are recorded about women' (SROW, 1968). Its prime aim was to undertake research on the education of girls and women, their subsequent employment, and in general, on the needs of girls and women in New Zealand. Findings were to be publicised and efforts made to bring about desirable changes. Since 1966, the list of studies undertaken by groups within this society has been impressive, and many of the studies have been published. Surprisingly, in view of the aims, very little of the research has focused directly on education, more attention being given to employment, the family, and general needs of women. However, many of the studies have relevance to education, and the studies on women on school committees (SROW, 1977 (b)) and women in further education (SROW, 1977 (a)) are particularly relevant in this review. In addition, the society has acted as a training ground for research in the social sciences, and skills have been developed among a wider group of people than typically involved in such research. However, the society's work has not been without its critics such as Levine (1974) who maintains that it conforms to the rigorous technical guidelines laid down by the (male) academic and political structures. Results are fed to policy makers and social researchers, two male-dominated groups. And furthermore, interviewers are typically 'trained to find information rather than to open up a therapeutic situation involving encounter and personal growth' (p. 80).

Interestingly, these comments were included in an academic journal article. The society itself is undergoing a continuing debate about the most appropriate ways of publishing findings and their role in bringing about change in society (Levett and Shields, 1975). Whatever the direction in the future, SROW has been responsible for a great deal of useful research in the last ten years and even Levine maintains that 'their experience is a remarkable instance of highly motivated training in survey techniques organized and channelled into a self-directed programme of empirical research' (p. 79). A somewhat similar kind of research was also undertaken by a much older organization, the National Council of Women, which dates back to 1896. They carried out a national survey in 1973 focused on employment-related issues concerning women, which included some data on attitudes to education. The introduction to the report *What Price Equality?* (1974) maintains that their research 'is not the work of experts. It is rather a cooperative effort by the ordinary members of NCW with expert help' (p. 7). This help came from several university departments, but the impetus and main body of the work was done by Society members, and once again we see useful research being undertaken by a group describing themselves as concerned amateurs.

Women's Studies Courses

The first Women's Studies Association conference was held in Hamilton last year (1978) and has resulted in the publication of the conference papers (Seymour, 1978 (a)). While many of the papers are more relevant to the content of women's studies courses than to research on women and education, it seems probable that the increasing interest in women's studies has already stimulated more research on women. Benseman (1978) reports that 46 courses of women's studies run by 35 organizations have been offered and that 82 percent of these have been established since 1975 (IWY). Some of the courses are run *for* women, such as assertiveness training, but there are also increasing numbers of courses *about* women, seeking to redress the male bias seen in the selection and interpretation of curriculum material in many traditional academic disciplines. Some such courses have recently been introduced in university and other formal settings, and are available for credit towards various qualifications.

(This distinction is important since it seems that the few male participants in such courses were almost all involved in this kind of formal course.) Twenty of the 21 contributors to the conference and all but two of the organizers of courses on women's studies were female, so it would appear that this organization is still predominantly female at present.

Taken together, it seems that research on women and education in New Zealand has been greatly influenced by groups of concerned women. Some female academics such as Bunkle, McDonald, Malcolm, Ritchie, Seymour and Robinson have been involved in the process, but their work has often been a personal statement, not necessarily automatically attracting institutional recognition or support (e.g., Jones, 1978). Furthermore, enquiries made earlier this year to University Departments of Education revealed little evidence of current research on women and education. Thus it would appear that, as has been claimed by Seymour (1978, p. xxii) about women's studies, much of the impetus for research on women and education has come from outside the ivory towers.

Research Topics and Results

The aim of this section is to provide a brief review of published research on women and education in New Zealand and to suggest some areas in which there are still gaps. The review is not intended to be completely comprehensive, rather the aim is to select research typical of that so far carried out. It should be also noted that several important references were found to have disappeared from the University of Otago library and thus could not be included in this review.

Child Rearing

A good summary of research on parental influences on sex roles can be found in Smith (in press). Overall, the Ritchies' further analysis of their 1970 data (Ritchie and Ritchie, 1977) is the major available resource, although little detailed data has so far been presented to support the conclusions drawn. A number of interesting student studies have been undertaken, but these are generally small-scale and unpublished. Thus there is need for further research in this area,

preferably based on direct observation of mothers', fathers' and children's behaviour rather than relying entirely on mothers' reports. Considerable overseas research is available, but it is by no means certain that findings would have cross-cultural applicability. Studies such as those of Barney (1975), Bell (1975), and Macaskill (1976), have shown clearly that sex-role stereotyping has occurred in New Zealand children by the time they get to preschool, but more information is needed on the processes involved in this development.

Analysis of Children's Books

Compelling evidence of stereotyping of sex roles in children's books in New Zealand is freely available. For instance, the Dunedin Collective for Women's study: *First Sex, Second Sex* (1973) provides a collection of examples from infant readers. This was followed by *Run John Run: Look Janet Look*, by the Council for Equal Pay and Opportunity (1976) which provides a more empirical analysis including checks of interrater reliability. Both studies show that infant readers have more stories and pictures of boys, and that far more boys are shown in the hero role. Parents are very stereotyped and women are portrayed in a very narrow range of roles (less than a third of those of the men). Girls are frequently shown as timid, good, reproachful, having few definite interests, and taking few initiatives. Boys on the other hand are more often lively, adventurous, and mischievous. Although some of the findings are less dramatic than overseas studies, and *Run John Run* lists some books which the authors felt deserved praise for both text and pictures, there is clear evidence of both subtle and not-so-subtle sex-role stereotyping running through the early readers. And some very sexist examples are still around. Gullen (1978) analysed the Little Golden Books which showed similar results to the other studies, and quotes with horror a poem from *Aren't you Glad:*

> Little girls have soft hair
> and necklaces and lace,
> daintiness and dolls
> and sweetness in their face.
>
> Little boys are rougher
> with bikes and balls and blocks.
> Little boys are tougher
> with corduroys and socks.

One student paper (Taylor) abstracted in Seymour (1978) suggests that reading material used in secondary schools may also seldom portray a girl or women as the main character. And Allum (1977) has found evidence of bias in home economics texts, while Bell (1975) examined the songs in junior song books. All the available research gives clear evidence of some sex-role stereotyping in curriculum materials, but so far the majority of attention has been given to infant readers, and it seems desirable that a wider selection of material used in schools be analysed.

Media

Two student studies (Hooker, 1976, and Ingram, 1976) have found strong stereotyping of sex roles in television advertisements and women's magazines, and it would be expected that other studies of the media would produce similar findings, but as yet, little attention has been given to this source of sex-typing modelling.

Coeducation

Irving (1976) has summarized research on coeducation but concluded that 'it is extremely difficult to draw wholly reliable conclusions about which type of school is better'. It seems probable that the choice of single-sex or coeducational schools (where such a choice is available) and the experience of education in the two settings, may well be different for males and females (e.g., Wales, 1978, and Young, 1978) but further careful study would be needed to establish this point. In addition, while important differences between the two kinds of school population have not been ruled out, it would be very difficult to attribute any differences found between such schools to the processes of education involved, rather than to differences in the subject groups. Again, it seems questionable whether overseas research on this topic (mainly from England) would necessarily be valid in the New Zealand context.

Subject choice

Sex differences in subject choices of secondary school pupils, even within coeducational schools, have been clearly documented (Bunce, 1970, and the National Advisory Council on the Employment of Women, 1968). Girls more often chose languages, social sciences and biology, while boys more often took mathematics and the physical sciences. Since these studies, the pattern has changed a little with fewer pupils of either sex taking languages and a lot more girls taking mathematics. However, differences remain with implications for occupational choice and further education. My own study suggested that sex differences in subject choice cannot simply be attributed to differences in ability or interest since boys and girls agreed closely about which subjects were interesting, easy and important. Nor had the majority of pupils chosen a career at the time that subject choices were made. However, beliefs about the importance of careers for males seemed to underlie some male choices of subjects seen as difficult or uninteresting, but possibly important for careers. Interestingly, girls' choices of subjects varied greatly between schools. For example, in one school, 22 percent of sixth form girls took mathematics, while in another, the proportion was 62 percent. Clearly further research is needed to examine the effect of school policies and traditions on the subject choice of girls.

Not surprisingly, similar differences in subject choice are also evident in tertiary education. Romanovsky (1975) found a similar pattern of subject choice and also demonstrated that women students select from among a much more restricted group of subjects than men. No female students were found in 1970 in 62 of the 155 major subject groups.

Interesting differences in the proportions of women in different subject areas categorized as 'masculine', 'feminine', 'androgynous', and 'undifferentiated' (on the Bem test) were obtained in a student study (Adlai and O'Brien, 1978) at Waikato. Further research in this area would probably support some of the sex-role explanations of sex differences in subject choice. Ritchie, Villiger and Duignan (1977) have produced a sex role inventory for New Zealand children which they believe will be a useful tool in this kind of research.

Achievement

Some information on sex differences in abilities among New Zealand school children is outlined by Smith (in press). Norms from PAT tests suggest girls tend to be superior in reading and mathematics in the early years, but that by Form 1 any differences have disappeared. Interestingly, she comments that the superiority of girls over boys in learning to read is reversed in countries such as Germany and Nigeria where primary teachers are male. This could be a profitable line of enquiry in New Zealand. An unpublished study by Clark (1975) investigated attitudes of Form 2 children towards mathematics and found similarly positive attitudes for both sexes.

It is very difficult to examine sex differences in achievement at higher levels in secondary school or university since as a number of studies (e.g., Romanovsky, 1975) show, from the sixth form on through university, girls form a diminishing proportion of those remaining in formal education. In 1971, only 31 percent of university students were female. Overall, there is no New Zealand evidence of sex differences in academic achievement which could explain differences in subject or consequent occupational choice.

Little research has been done on the 'fear-of-success' motive so widely reported among girls and women in the United States. However, one student study (Yeoman, 1977) suggests that although such a motive was evident among her small sample of fifth form and university students, it apparently affected only about half as many females in New Zealand as has been found in America. More evidence on this point would be very interesting.

Vocational guidance

Predictably, the small amount of research done in this area shows a great deal of sex-role stereotyping. For example, Ranstead (1977) found sexist language and illustrations typical of State Services Commission leaflets, although some of these are being modified. But little is known of what actually goes on in school vocational guidance programmes, or individual counselling in schools and in the Vocational Guidance Service. Possibly the recent introduction of expanded guidance networks and trained school

counsellors is producing a rather different approach to vocational guidance than the somewhat passive approach employed and frequently criticised in the past (e.g., Robinson and Aitken, 1975).

Women in the teaching profession

A considerable amount of research, mainly descriptive, has been done recently on the position of women in teaching. Bunkle (1975), Malcolm (1978), Mayo (1970), Webster (1975) have clearly demonstrated that women are dramatically under-represented in higher-level positions in teaching, and that the position may have worsened rather than improved since earlier this century. It has been frequently noted that proportionately, slightly more women than men attend holiday in-service courses at their own expense, while women are grossly underrepresented at term-time invited courses. Course planners are almost entirely male, as are high-level Education Department officials, school principals, and those holding positions of responsibility, with the diminishing exception of women teachers in girls' schools. This underrepresentation of women in high places affects not only women in the teaching profession, but also girls in the schools who are not exposed to models of women in positions of power.

Similarly, a striking graph prepared by Wright for the *Education and the Equality of the Sexes* conference (Department of Education, 1975, p. 10) shows that women occupy very few positions of responsibility in teachers colleges in spite of the predominance of female students in these institutions. And Lodge's analysis (1976) of women academics in New Zealand universities shows a similar pattern. Women were found on the average to have comparable qualifications, more publications and more administrative experience than their male counterparts, and yet they took longer on average to receive promotion. Such findings are supported by evidence from the Inter-University Committee for Sex Equality in Education (Thompson, 1974).

Malcolm (1978) attempts to provide some evidence about the reasons underlying the absence of women in higher positions in teaching Case studies and questionnaire results indicated that the most influential reason was the priority given by women to marriage and family which meant an almost universal break in service. Other factors included women's preference for teaching rather than administration and women's lack of

self-esteem leading to fewer applications for promotion. Further investigation into the processes involved in promotion would seem to be worthwhile, and it is pleasing to learn that the Department of Education is currently carrying out such a research project in collaboration with the teachers' associations (McDonald, in press).

As well as examining the status of women in teaching, a few studies have been undertaken into female membership of decision-making bodies in education. The SROW survey of men and women on school committees (1977) is described by Julian (1978) who was involved in the study. It was found that only one in five members of school committees were women, and that this proportion was even lower in rural areas. Half the women surveyed said they would not consider being chairman, even if they had held similar offices in other (more female) organizations. Sex-role stereotypes were clearly evident among committee members who frequently justified the inclusion of women on school committees by referring to teamaking and helping with social functions, but felt that there should not be too many women since they are not interested in business. Nor, according to one correspondent, are they any good at chopping down gorse bushes!

McDonald (1975) has examined the role of women in decision-making bodies in education in an unpublished paper entitled *Let Us Now Praise Famous Men*. She suggests that there is a principle of appointing approximately two women onto advisory committees, regardless of the size of the committee. Currently some moves are underway to increase the influence of women in educational decision-making, but clearly continuing monitoring of the process is required.

Two more general studies into the characteristics of married women teachers have been undertaken. Watson (1966) presented statistics on the marriage of women teachers and the occupations of their husbands, but his findings would probably now be a little outdated, and his conclusions somewhat controversial. For instance:

> Most women enter the occupational world only as a short adventure between school and marriage, or else as a means of supplementing the family income... As many headmasters know, the woman teacher who is interested mainly in her home and marriage is not likely to have a strong interest in raising professional standards or in improving her teaching skill. Indeed, such women are sometimes

> opposed to raising teaching standards since this may run contrary to their personal long term interests. (pp. 159-160).

These suggestions are refuted by a study by McDonald (1976) in which readers of *Education* who were married women teachers were invited to respond to some questions. These women reported deriving considerable personal satisfaction from teaching, and while the salary was welcome, the satisfaction was primary. In addition, many were seeking professional careers and some mentioned as a problem their difficulty in getting (male) inspectors and principals to accept that they were serious about their careers. While these results are very interesting, the respondents in this survey were volunteers who took the initiative in participating and they were disproportionately from the primary sector, so the findings may not necessarily be representative of all married women teachers.

Intervention studies

Somewhat surprisingly, only one published study was found in which there was an attempt to reduce sex-role stereotyping. Kelderman, Potts, Wade and Gudsell (1978) in a small-scale student study, obtained information on attitudes to sex roles etc., from sixth form boys and girls, prior to a brief presentation including talk, discussion, song, and drama, designed to change attitudes in this area. Significant changes were obtained on 11 of the 29 attitudinal statements on a retest a week later. Larger scale, controlled, intervention studies could well prove very worthwhile.

Historical research

Among published historical research on women and education in New Zealand are a number of studies of girls' schools (e.g., Cumming and Cumming, 1971). In addition, there have been historical analyses of available statistics relating to women and education. Gardner (1976) describes the early women graduates in New Zealand and shows that the proportion of women in higher education has not increased since the early part of this century. Similarly Romanovsky (1975) and Bunkle (1975b) examine trends in the statistics. All these studies suggest a decline in the relative position of women, rather than the improvement which is commonly believed to have occurred. Overall, considering the innovations in the education of women in earlier years in New Zealand, there

is comparatively little historical research published on this topic so far.

Conclusion

It appears that a considerable amount of descriptive data on girls and women in education in New Zealand is now available. For instance it is clear that even very young New Zealand children share the attitudes to sex roles found among adults in our society. Many books for young children, including those used for teaching reading, are shown to be stereotyped. The effects of single-sex education and coeducation in secondary schools are not clear, but there are clear sex differences in subject choice in both kinds of school and at university, even though differences in achievement are not found. Fewer girls than boys stay on at school past the fifth form or progress to higher education. Although many women teachers claim to be interested in a career, women are underrepresented in higher places within the teaching profession and on educational decision-making bodies.

But there are also gaps in the research thus far. Possibly due to the particular interests and abilities of those carrying out the research, more attention has been given to young children and women teachers, than to older children or women in higher education. Factors associated with sex roles, in particular, marriage and child rearing, are believed to underlie many of the findings, but comparatively few studies have attempted to examine process variables. Research has tended to be descriptive, with analyses of available statistics and surveys by far the most popular approach.

Thus it is suggested that the following lines of further research might prove particularly fruitful:

1. Observational studies of students and teachers at all levels of education.

2. Investigations of the powerful 'hidden curriculum', of attitudes, models, rules and traditions found in our schools.

3. Experiments to assess the effectiveness of procedures and curriculum materials (such as those being produced by the

Curriculum Unit in the Department of Education) designed to widen the horizon of boys and girls beyond traditional sex roles.

4. Studies of men and boys in education. Our present models of education are claimed to be designed by men for males, but such claims need verification. Also, it is often necessary to look at sex role data of both sexes together since the two are interrelated.

5. Replication of overseas studies such as those on fear of success.

6. Research on women and further education and the more informal kinds of adult education in which so many women are involved.

7. Research on women in tertiary education. The relative lack of research here is surprising in view of the widespread use of university students as subjects in so much psychological and other research.

A good start has been made in researching women and education in New Zealand, but much interesting work remains to be done.

Conclusion

It has been argued in this paper that much of the stimulus for research on women and education in New Zealand has come from the grass roots level from 'women with a cause'. Descriptive evidence was necessary to back up submissions and claims for changes in society (although some feminists rejected altogether the value of objective research in pursuing their aims). It seems to me that there is a major and continuing role for groups of women and individuals operating far from traditional research environments in monitoring media materials, carrying out case studies and surveys, raising questions and challenging the complacent or defensive attitudes still frequently found in many parts of the male-dominated educational establishment towards issues involved with women and education. However, I have suggested that there is also a need for moving from documentation and description to analysis, explanation, and experimentation with action. Such kinds of study need all the research skill available. While such skill

is by no means limited to the academic world, I believe that academics (including males) could contribute much more to research on women and education than has so far been the case. It also seems to me that there would be considerable value in involving more men in this research, partly as a consciousness-raising exercise, and partly because there are still relatively few women to be found in academia - even in Departments of Education!

Once upon a time, an aim of education was to prepare boys and girls for their future sex roles. More recently, we seem to be looking for ways to educate people to overcome their sex roles. In my more optimistic moments, I look forward to a time when sex becomes a less important society classification and research variable. Then maybe research in education could be focused on dimensions of individual differences which are surely more basic to most educational processes than that of sex.

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